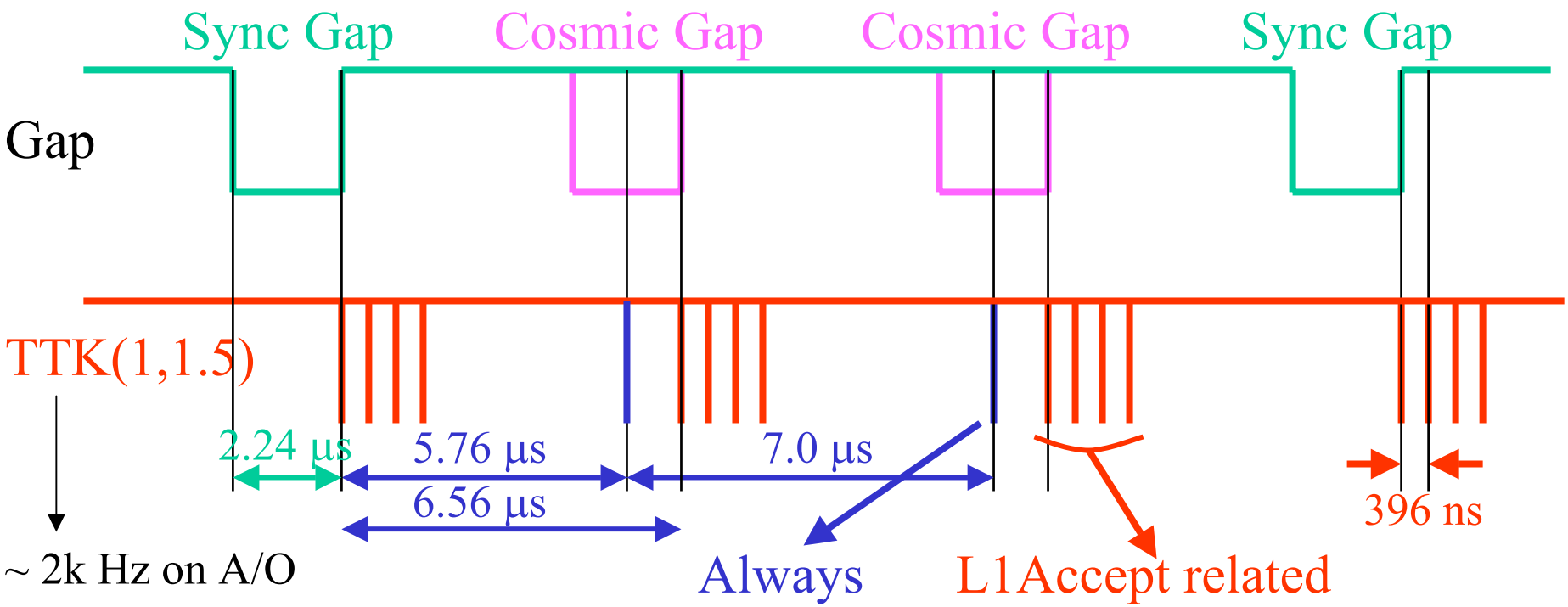
Spurious Trigger Term Structure



- Look at TTK(1,1.5) on TFW with reference to beam structure.
  - TTK(1,1.5) rate on A/O term is ~2k Hz at 500Hz L1 Trigger
- Find 2 components of spurious trigger
  - In the middle of 2nd and 3rd Gap (None in the Sync Gap).
  - In the first 4-5 396ns-bunch crossing after all gaps, only when DAQ is running.

TTK Term Rate

	Zero bias at 500 Hz L1	Zero bias with paused
TTK(2,3) on A/O page	450 Hz	130 Hz
TTK(2,3) on Spec. Trig. page	120 Hz	0 ~ 0.4 Hz
TTK(2,3) Trigger Term #70	10 ~ 12 Hz	0 ~ 0.4 Hz
TTK(1,10) Trigger Term #72	7 ~ 10 Hz	0.7 ~ 2.5 Hz

* When we applied max. discriminator thresholds, all rates went down to ~0.0 Hz.

- Why are TTK rates so high?
- Why are TTK rates on the A/O page much higher then ones on the specific trigger page?
- Why are TTK rates with readout different from ones with paused?
- The spurious triggers are generated at the AFE level.
  - The firmware of the L1CTT chain does not create high trigger rate.